

## REMARKS

The Requirement for Restriction has been carefully reviewed. It is the Examiner's position that the present claims encompass five (5) groups of inventions. These are as follows:

- Group I: Claims 31-41 and 47-49 drawn to a method of detecting a silenced gene in an organism;
- Group II: Claims 42-46 drawn to a process for isolating RNA molecules;
- Group III: Claims 50-56 drawn to a method of determining the identity of a gene;
- Group IV: Claims 57-61 drawn to a method for determining the pathogen resistance status in a plant; and
- Group V: Claims 62-65 drawn to a method for identifying or characterizing temporal gene translational effect.

The Examiner also asserts that the claims are directed to patentably distinct species. These include A) plant, B) mammal, C) insect, D) avian, E) reptile, F) protozoan, G) nematode and has required Applicants to elect a single disclosed species for prosecution on the merits.

At the outset, Applicants have amended claim 1 to remove the requirement for introduction of an exogenous nucleic acid in the preamble. As taught in the specification, the method of claim 32 could be performed on any cell where it is suspected that gene silencing is occurring. Detection of the 25 ntp RNA (i.e., the effector molecules for gene silencing) in accordance with the invention would indicate that a target gene was being silenced and identification of sequences which specifically hybridized with the 25 ntp RNA would identify the target gene. Support for this amendment can be found at page 4, line 37, over to page 5, line 18.

## TRAVERSAL

According to the MPEP §803.01, there are two criteria for restriction between inventions which are alleged to be patentably distinct: 1) the inventions must be independent and distinct as claimed and 2) there must be a serious burden on the Examiner if the restriction is not required.

The MPEP at §802.01 defines the terms "independent" and "distinct" as:

### INDEPENDENT

The term "independent" (i.e., not dependent) means that there is no disclosed relationship between the two or more subjects disclosed, that is, they are unconnected in design, operation, or effect, for example: (1) species under a genus which species are not usable together as disclosed; or (2) process and apparatus incapable of being used in practicing the process.

### DISTINCT

The term "distinct" means that two or more subjects as disclosed are related, for example, as combination and part (subcombination) thereof, process and apparatus for its practice, process and product made, etc., but are capable of separate manufacture, use, or sale as claimed, AND ARE PATENTABLE (novel and unobvious) OVER EACH OTHER (though they may each be unpatentable because of the prior art). It will be noted that in this definition the term related is used as an alternative for dependent in referring to subjects other than independent subjects.

Notwithstanding the Examiner's assertion to the contrary, it is apparent from an objective reading of Groups I through V inventions that they are drawn to closely related subject matter and, therefore, do not comprise separate and distinct inventions. Nor can the examination of at least Groups I-III together reasonably be regarded as imposing a serious burden on the Examiner. Indeed, a proper search of the Group I invention would necessarily encompass the claims of the Groups II and III inventions as the methods encompassed by the claims result in the detection of gene silencing in an organism and optionally

comprise further characterization of the SRMs and the target gene. Thus, at the very least, these groups of invention have a clear disclosed relationship and cannot be properly determined to be "independent." In light of the foregoing, Applicants request that the Examiner withdraw, or at the very least, modify, the present requirement for restriction.

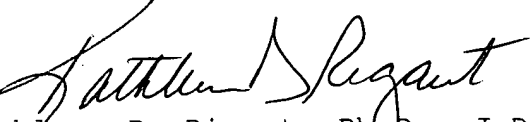
In order to be fully responsive however, Applicants' hereby elect the Group I invention with traverse. Applicants' also elect "mammal" in response to the requirement for a species election. It is respectfully submitted that claims 32, 35-51, 53-56, 62-65 read on the elected species.

Applicants reserve the right to file one or more continuing applications under 35 U.S.C. §120 on the subject matter of any claims finally held withdrawn from consideration in this application. Favorable consideration leading to prompt allowance of the present application is respectfully requested.

Respectfully submitted,

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